

Claims

What is claimed is:

- 1 1. A method, comprising:
2 controlling a data flow associated with at least one of a selected number of
3 ports having a first actual usage value above a determined average shared
4 resource usage value associated with the selected number of ports sharing a
5 resource.
- 1 2. The method of claim 1, further comprising:
2 determining the determined average shared resource usage value.
- 1 3. The method of claim 1, further comprising:
2 removing a control on the data flow associated with the at least one of the
3 selected number of ports after the at least one of the selected number of ports is
4 determined to have a second actual usage value below the determined average
5 shared resource usage value.
- 1 4. The method of claim 1, wherein determining the determined average shared
2 resource usage value comprises:
3 selecting the selected number of ports by locating at least one port included
4 in a plurality of ports using an amount of the resource greater than a guaranteed
5 minimum amount;
6 determining a cumulative shared usage value based on the selected number
7 of ports; and
8 determining the determined average shared resource usage value by dividing
9 the cumulative shared usage value by the selected number of ports.
- 1 5. The method of 1, further comprising:

2 adjusting the selected number of ports to provide a scaled selected number of
3 ports based on a port speed associated with a first port and a port speed
4 associated with a second port, wherein the first port and the second port are
5 included in the selected number of ports.

1 6. The method of claim 1, further comprising:
2 repeatedly determining the determined average shared resource usage value
3 associated with the selected number of ports.

1 7. The method of claim 1, wherein controlling the data flow further comprises:
2 controlling the data flow associated with the at least one of the selected
3 number of ports having the first actual usage value above a dynamic threshold
4 value.

1 8. The method of claim 7, further comprising:
2 setting the dynamic threshold value as a sum of the determined average
3 shared resource usage value and a delta value.

1 9. The method of claim 8, further comprising:
2 determining the delta value according to a port speed and an overall resource
3 usage value including a cumulative shared usage value based on the selected
4 number of ports.

1 10. The method of claim 1, wherein the resource comprises a memory.

1 11. An article comprising a machine-accessible medium having associated data,
2 wherein the data, when accessed, results in a machine performing:
3 controlling a data flow associated with at least one of a selected number of
4 ports having an actual usage value above a determined average shared resource
5 usage value associated with the selected number of ports sharing a resource.

1 12. The article of claim 11, wherein the data, when accessed, results in the
2 machine performing:
3 determining the determined average shared resource usage value.

1 13. The article of claim 11, wherein the data, when accessed, results in the
2 machine performing:
3 adjusting the determined average shared resource usage value to provide a
4 scaled average shared resource value based on a port speed associated with a
5 first port and a port speed associated with a second port, wherein the first port
6 and the second port are included in the number of ports.

1 14. The article of claim 11, wherein controlling the data flow further comprises:
2 controlling the data flow associated with the at least one of the selected
3 number of ports having the actual usage value above a dynamic threshold value.

1 15. The article of claim 14, wherein the data, when accessed, results in the
2 machine performing:
3 setting the dynamic threshold value as a sum of a scaled average shared
4 resource usage value and a delta value.

1 16. The article of claim 11, wherein the resource is a memory.

1 17. The article of claim 11, wherein determining the determined average shared
2 resource usage value comprises:
3 selecting the selected number of ports by locating at least one port included
4 in a plurality of ports using an amount of the resource greater than a guaranteed
5 minimum amount;

6 determining a cumulative shared usage value based on the selected number
7 of ports; and
8 determining the determined average shared resource usage value by dividing
9 the cumulative shared usage value by the selected number of ports.

1 18. The article of claim 17, wherein determining the cumulative shared usage
2 value comprises:
3 over the selected number of ports, summing the amount of the resource used
4 that is greater than a guaranteed minimum amount.

1 19. An apparatus, comprising:
2 a controlling module to control a data flow associated with at least one of a
3 selected number of ports having an actual usage value above a determined
4 average shared resource usage value associated with the selected number of
5 ports sharing a resource.

1 20. The apparatus of claim 19, further comprising:
2 an average determination module to determine the determined average
3 shared resource usage value.

1 21. The apparatus of claim 20, wherein the determined average shared resource
2 usage value is determined by determining a cumulative shared usage value
3 based on the selected number of ports and dividing the cumulative shared usage
4 value by the selected number of ports.

1 22. The apparatus of claim 21, wherein the cumulative shared usage value is
2 determined by summing, over the selected number of ports, the amount of the
3 resource used that is greater than a guaranteed minimum amount.

1 23. The apparatus of claim 19, wherein the controlling module comprises a
2 network processor.

1 24. The apparatus of claim 19, further comprising:
2 a Layer 2 Ethernet switch.

1 25. An apparatus, comprising:
2 a memory having a transmit queue storage;
3 a plurality of ports coupled to the memory;
4 a reservation module coupled to the plurality of ports to provide a minimum
5 memory resource per port and to share a remaining memory resource among the
6 plurality of ports:
7 an average determination module to determine a determined average shared
8 resource usage value as the minimum memory resource; and
9 a controlling module to control a data flow associated with at least one of the
10 plurality of ports having an actual usage value above the determined average
11 shared resource usage value.

1 26. The apparatus of claim 25, wherein average determination module is to
2 determine the determined average shared resource usage value by determining a
3 cumulative shared usage value based on the plurality of ports and dividing the
4 cumulative shared usage value by the plurality of ports.

1 27. The apparatus of claim 25, wherein the memory is to store a plurality of
2 packets in the transmit queue storage.

1 28. A system, comprising:
2 a controlling module to control a data flow associated with at least one of a
3 selected number of ports having a first actual usage value above a determined

4 average shared resource usage value associated with the selected number of
5 ports sharing a resource; and
6 a connector including at least one of the selected number of ports.

1 29. The system of claim 28, further comprising:
2 an omnidirectional antenna to receive information included in the data flow.

1 30. The system of claim 28, further comprising:
2 a memory coupled to the selected number of ports.

1 31. The system of claim 30, wherein the memory comprises a transmit queue
2 storage.

1 32. The system of claim 28, further comprising:
2 a communications medium to couple to the connector.